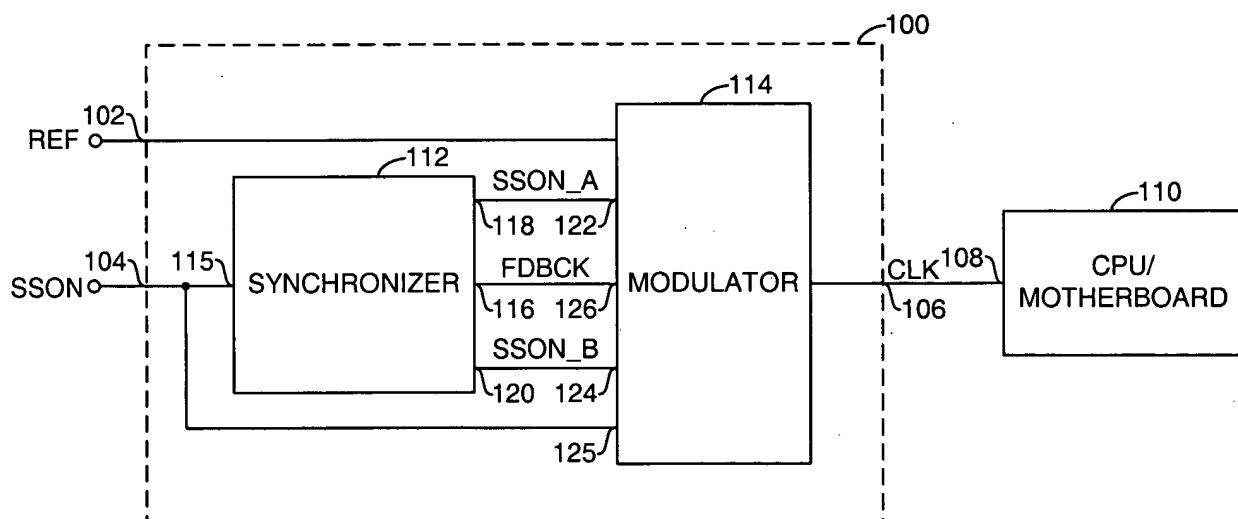
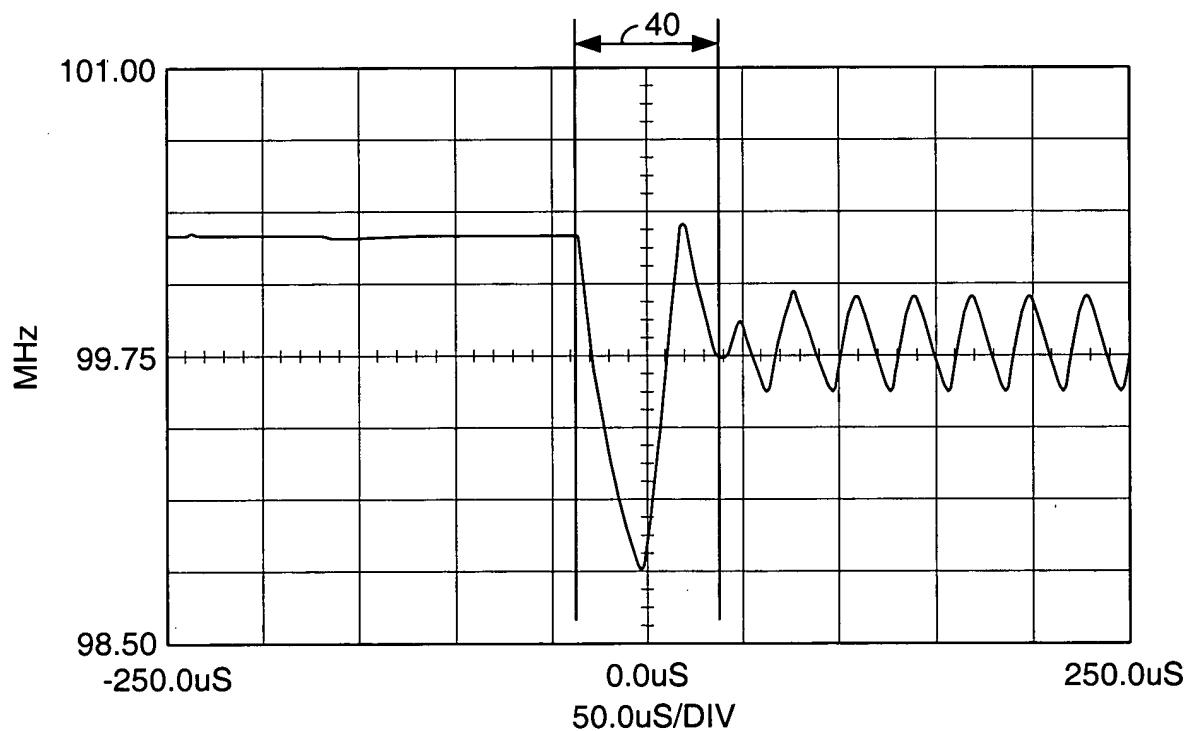
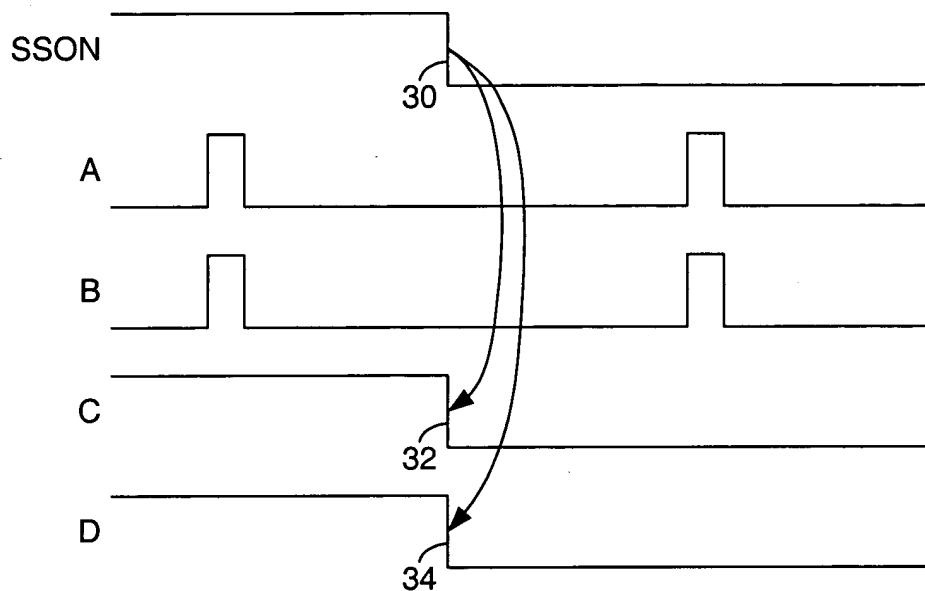


(CONVENTIONAL)

FIG. 1**FIG. 3**



REPLACEMENT SHEET

09/436,522
2637

(CONVENTIONAL)

FIG. 2

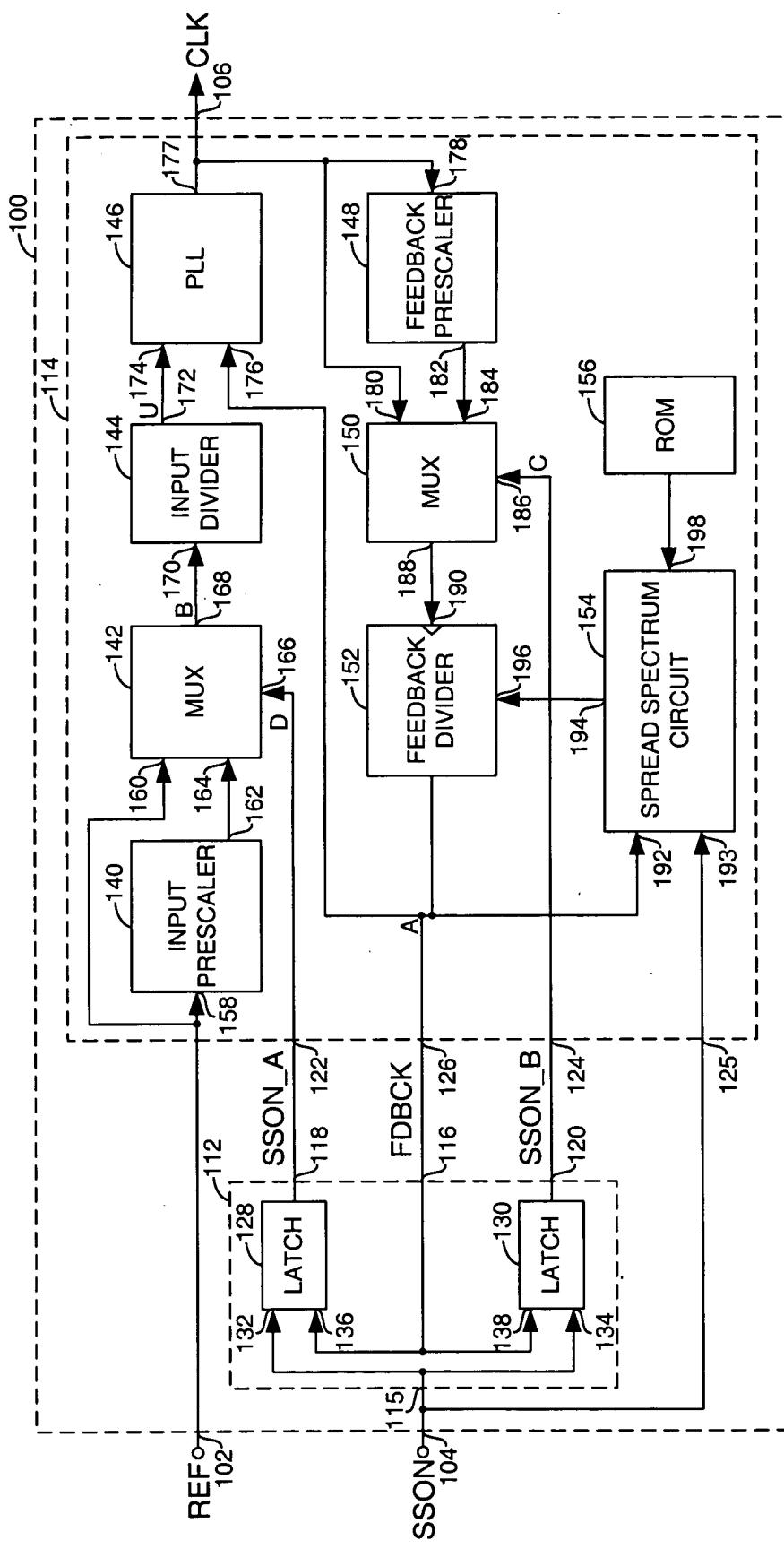
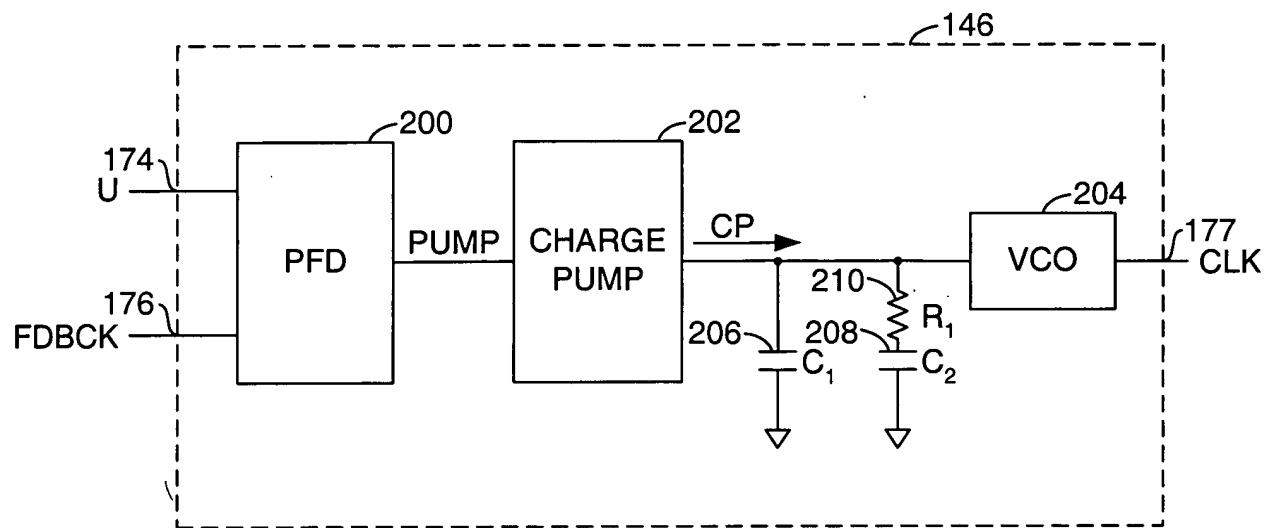
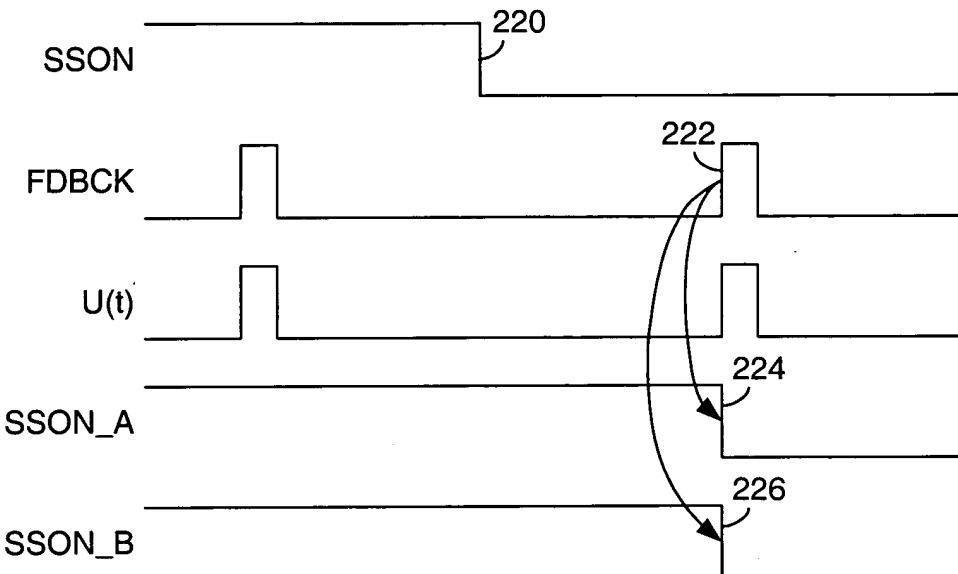
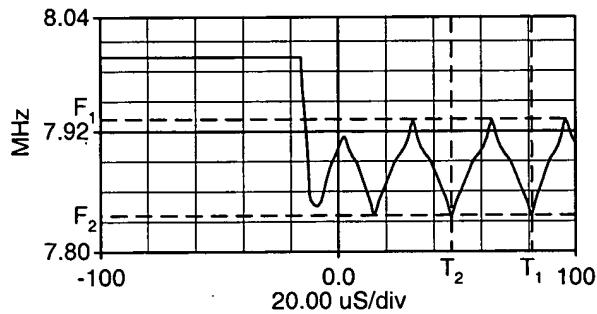
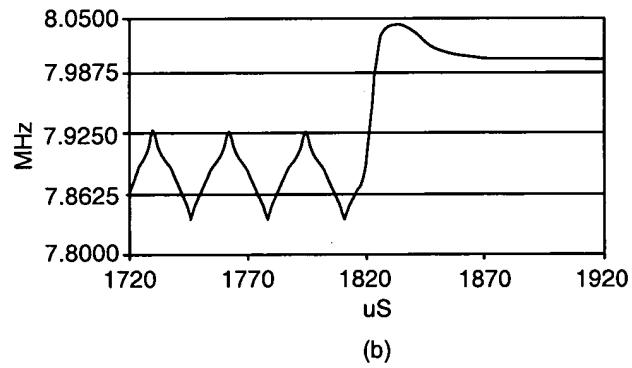
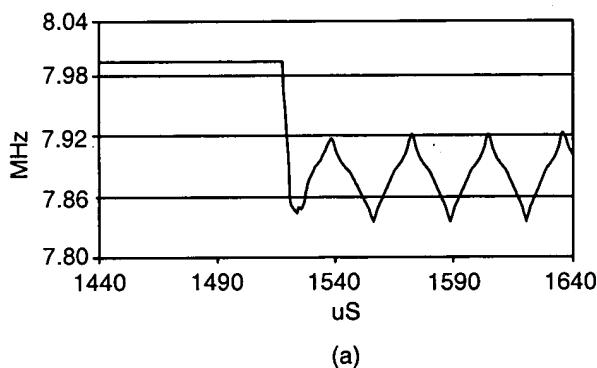


FIG. 4

**FIG. 5**



SPREAD SPECTRUM TRANSITION BEHAVIORS ARE CONTROLLED BY THE PROGRAM

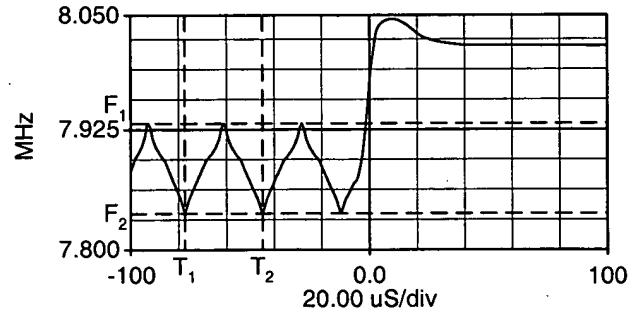


$$T_1 = 49.33\text{uS} \quad T_2 = 01.33\text{uS} \quad \Delta = 32.00\text{uS}$$

$$F_1 = 7.93125\text{MHz} \quad F_2 = 7.83750\text{MHz} \quad \Delta = -93.75\text{KHz}$$

$$\text{MEAN} = 7.9401907\text{MHz}$$

$$\text{PK - PK} = 173.44\text{KHz}$$



$$T_1 = -76.89\text{uS} \quad T_2 = -44.89\text{uS} \quad \Delta = 32.00\text{uS}$$

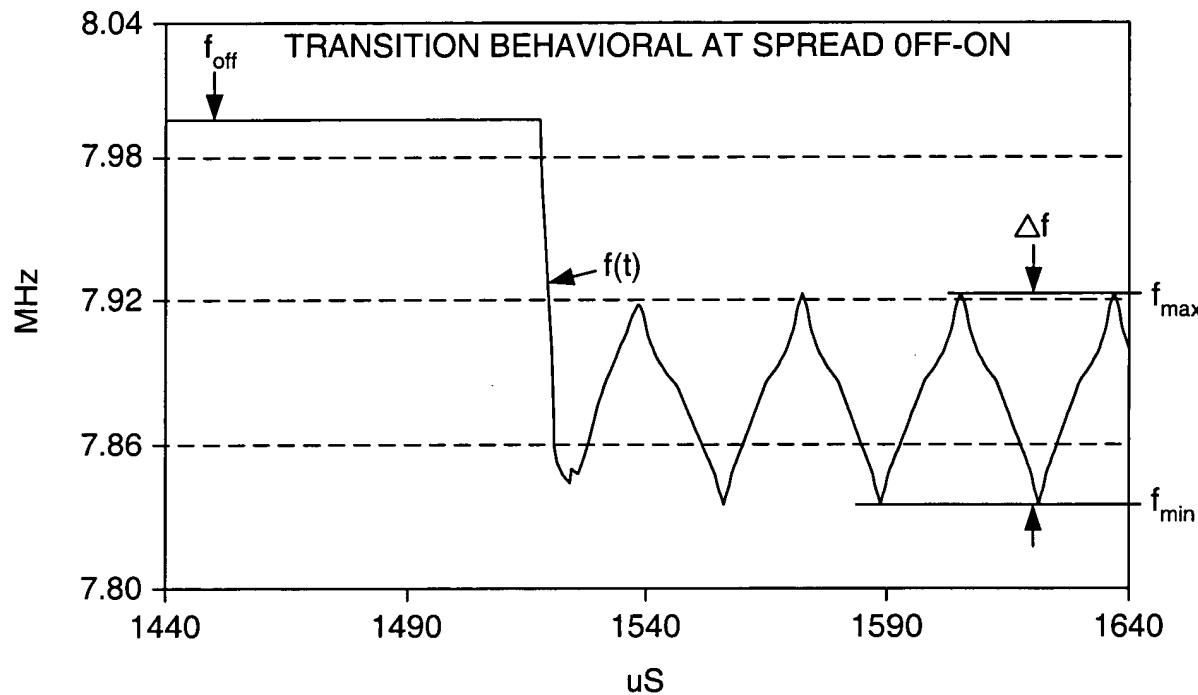
$$F_1 = 7.93125\text{MHz} \quad F_2 = 7.83750\text{MHz} \quad \Delta = -93.75\text{KHz}$$

$$\text{MEAN} = 7.9530444\text{MHz} \quad \text{PK - PK} = 206.85\text{KHz}$$

FIG. 6



CRITERIA FOR DETERMINING "GOOD AND BAD" SS TRANSIENT BEHAVIOR



$f(t)$: PLL's RUNNING FREQUENCY IN TRANSIENT PERIOD

f_{off} : PLL's SSCG OFF FREQUENCY

f_{max} : MAXIMUM FREQUENCY IN SSCG ON

f_{min} : MINIMUM FREQUENCY IN SSCG ON

Δf : PEAK TO PEAK FREQUENCY IN SSCG

CRITERIA NEED TO BE SATISFIED:

FREQUENCY RUNNING RANGE DURING TRANSIENT $f_{min} \leq f(t) \leq f_{off}$

FIG. 7

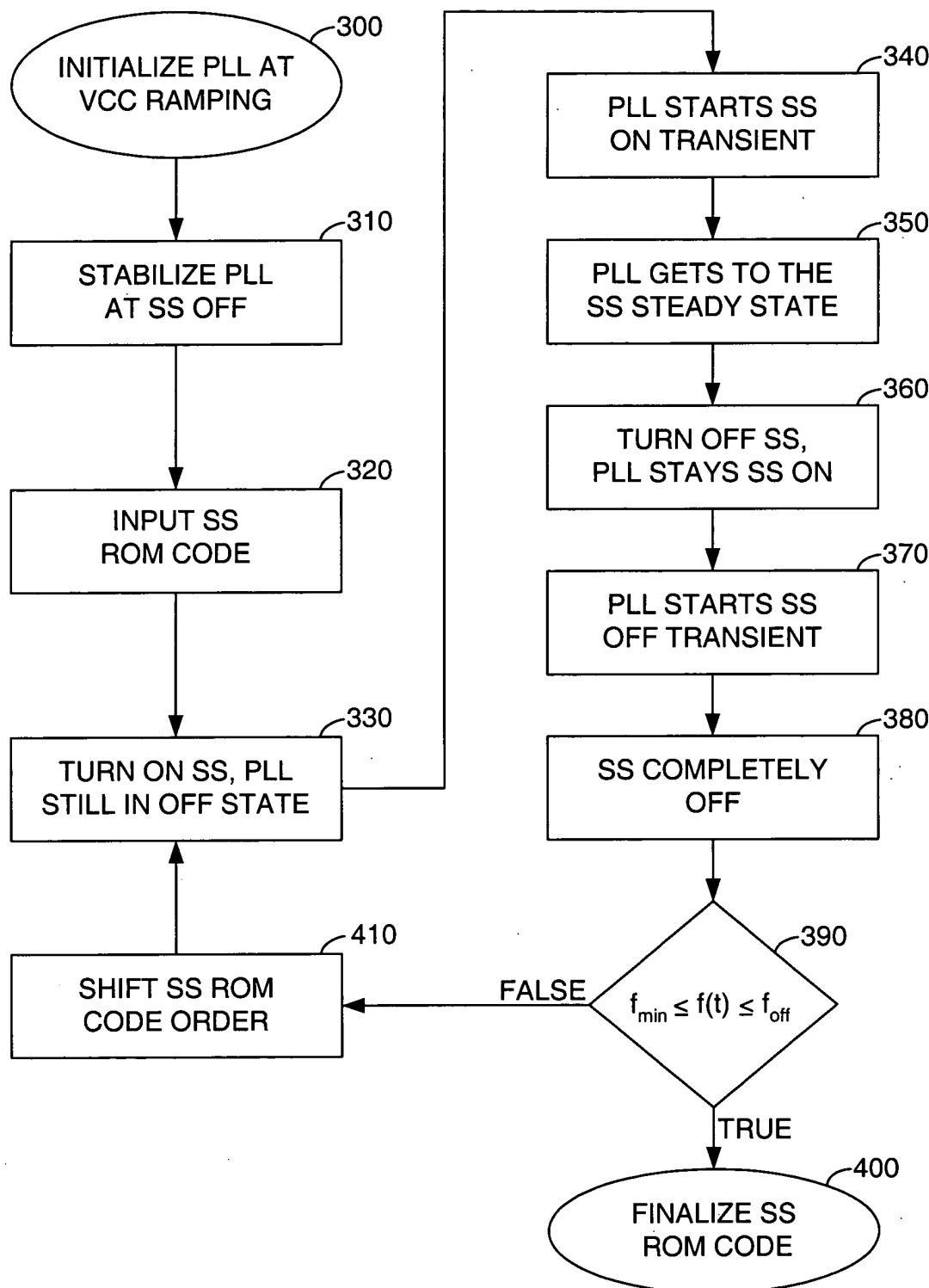
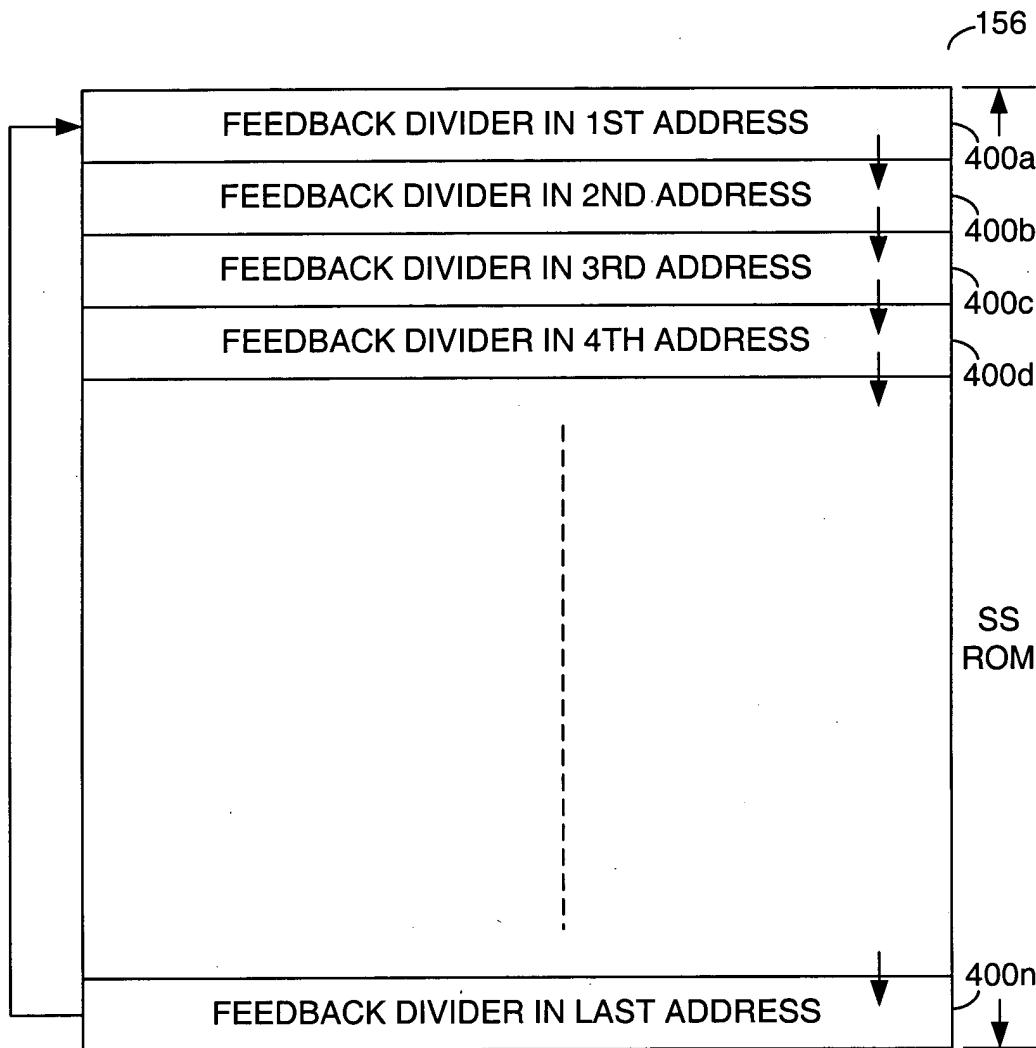


FIG. 8



ORDER SHIFTING STEP IN RESPONSE TO BAD BEHAVIOR



MOVE FEEDBACK DIVIDER IN LAST ADDRESS TO 1ST ADDRESS AND SHIFT DOWN SS ROM CODE.

FIG. 9